

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Status of the Claims

Claims 3 and 9 are currently being amended to add features from dependent claims 6 and 12. Claims 6 and 12 are requested to be cancelled without disclaimer or prejudice. Some of the features from claims 6 and 12 has been incorporated in respective independent claims 3 and 9. Thus no new matter is added. Claims 1, 2, 4, 5, 7, 8, 10, 13 and 14 were cancelled without prejudice or disclaimer.

Claim Rejections under 35 U.S.C. Section 103

Claims 3, 9 and 15-22 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Eyidi et al. (Growth of CeO₂ thin films...) in view of Hans Thieme et al. (U.S. Patent No. 6,458,223) and JP 07-105750 (hereinafter JP '750) and Hsu (U.S. Patent No. 6,569,745) and Christen (U.S. Patent No. 6,296,701). Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eyidi et al. in view of Hans Thieme et al., JP '750, Hsu, Christen and Akedo et al. (U.S. Patent No. 6,827,634). Claims 6 and 12 are cancelled and some features from claims 6 and 12 are incorporated into the independent claims 3 and 9, thus the rejections with regard to claim 6 and 12 are moot.

Independent claims 3 and 9, as amended recite a method for producing a superconducting wire that includes, planarizing a textured metal substrate by at least one of mechanochemistry, electrolytic polishing, and chemical polishing and thermally treating the textured metal at a temperature of 500 °C to 800°C. The Examiner does not cite Eyidi et al., Hans Thieme et al., JP '750, Hsu and Christen, alone or in combination, as teaching or suggesting planarizing by at least one of mechanochemistry electrolytic polishing, and chemical polishing. (Final Office Action dated May 11, 2010, page 6, lines 11-17).

Eyidi et al. are cited for teaching a method of making a superconductor using a nickel substrate that is hot rolled and, cold rolled to achieve a deformation of at least 99.5%. (Page 15) However, Eyidi et al. fail to teach or suggest planarizing a textured metal substrate by at least one of mechanochemistry, electrolytic polishing, and chemical polishing and thermally

treating the textured metal at a temperature of 500 °C to 800°C. Accordingly, Eyidi et al. fails to teach or suggest the features of claims 3 and 9.

Hans Thieme et al. are cited as disclosing a method of making a superconductor (Col. 1) wherein the roughness of the substrate corresponds to the current carrying capability of the superconductor film wherein the roughness is 10-20 nm Ra (Col. 11-12). Hans Thieme et al. fail to teach or suggest, planarizing a textured metal substrate by at least one of mechanochemistry, electrolytic polishing, and chemical polishing and thermally treating the textured metal at a temperature of 500 °C to 800°C.

JP '750 is directed to a Polycrystalline metallic base with crystal face (110) that is normal to the metallic based substance. (Paragraph [0023]) JP '750 fails to teach or suggest planarizing a textured metal substrate by at least one of mechanochemistry, electrolytic polishing, and chemical polishing and thermally treating the textured metal at a temperature of 500 °C to 800°C.

Hsu is directed to a shared bit line cross point memory array structure. (Abstract) In particular, Hsu recites an oxide deposited on a substrate having a thickness of 500 nm and 1000 nm where the oxide is planarized to a thickness of between approximately 50 nm and 500 nm. (Column 2, lines 60-66) Hsu fails to teach or suggest planarizing a textured metal substrate by at least one of mechanochemistry, electrolytic polishing, and chemical polishing and thermally treating the textured metal at a temperature of 500 °C to 800°C.

Christen is directed to biaxially textured laminate articles having a polycrystalline biaxially textured metallic substrate. (Abstract) However, Christen fails to teach suggest, planarizing a textured metal substrate by at least one of mechanochemistry, electrolytic polishing, and chemical polishing and thermally treating the textured metal at a temperature of 500 °C to 800°C. In particular, Christen is cited for annealing a nickel substrate in a vacuum atmosphere, or reducing atmosphere, at a temperature of 600-900°C for 5 hours for the purpose of removing metal oxides. (Column 8, lines 16-30) Christen fails to teach or suggest the above recited features of claims 3 and 9.

The Examiner cites Akedo et al. as teaching the planarizing by mirror surface. (Column 5, lines 50-55) Claims 3 and 9 do not recite mirror roller or mirror surface in order expedite prosecution and seek an allowance of the amended claims. Akedo fails to teach or

suggest the features of claims 3 and 9 such as, planarizing a substrate by at least one of mechanochemistry, electrolytic polishing, and chemical polishing and thermally treating the textured metal at a temperature of 500 °C to 800°C.

Accordingly, the references of record fail to teach or suggest the above recites features of claims 3 and 9. Therefore, claims 3 and 9 are believed to be allowable. Because claims 15-22 directly or indirectly depend from claims 3 and 9, they are believed to be allowable for at least the same reasons claim 3 and 9 are believed to be allowable.

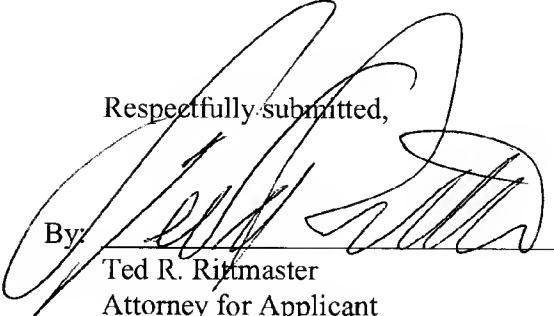
Concluding Remarks

After amending the claims as set forth above, claims 3, 9, 12, and 15-22 are now pending in this application. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

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